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POLLUTION OF THE INTERSTATE WATERS OF THE CORNEY DRAINAGE SYSTEM (ARKANSAS-LOUISIANA). PROCEEDINGS OF PUBLIC HEARING HELD AT HOMER, LOUISIANA, ON JANUARY 16-17, 1957. VOLUME II

Public Health Service
Washington, D. C.

17 January 1957

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PB 230 869

TRANSCRIPT OF PROCEEDINGS
PUBLIC HEARING
POLLUTION COUNTY DRAINAGE SYSTEM
(ARKANSAS-LOUISIANA)
[illegible], LOUISIANA
JANUARY 16-17, 1957

VOLUME II

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

UTION OF THE INTERSTATE WATERS OF THE CONNEY DRAINAGE SYSTEM

(ARKANSAS-LOUISIANA)

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TRANSCRIPT OF PROCEEDINGS

PUBLIC HEARING

HOMER, LOUISIANA

JANUARY 13-17, 1 9 5 7

VOLUME II.

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AAAAA

CHAIRMAN: The Government may proceed, then, and call those witnesses.

MR. EDELMAN: I would like to have a stipulation read into the record that will save calling a witness, if I may. Mr. Keith and I, during the break for lunch, have arrived at a stipulation concerning the testimony of Mr. E. M. Pittman. Is Mr. Pittman here? There is Mr. Pittman. (Indicating) Mr. Keith, as counsel for the operators he represents, and the Government, have stipulated that Mr. E. M. Pittman, of the Tidewater Oil Company and Seaboard Oil Company, if sworn, would testify substantially as follows:

That brine from producing wells in the Atlanta Field, which produce from Cotton Valley and Reynolds Limestone formations, is being successfully injected into the Limestone formation; that this injection system was constructed in 1948 at a cost of $218,811.00; that the operating costs since 1948 are $230,145.51; that during the period this system has been in

operation, it has disposed of 13,838,780 barrels of brine; that among the companies whose wells are connected to this system are Lion, Skelly, Willis and the Placid Companies.

MR. EDELMAN: I appreciate Mr. Keith's stipulation. I think it expedites the progress of the hearing.

CHAIRMAN: Mr. Keith, do we understand that stipulation is concurred in by you?

MR. KEITH: That is correct, sir; we do concur in the stipulation.

CHAIRMAN: It will be received for what it is worth. Of course, there is no opportunity for any other parties to cross-examine that witness. We will have to take it with that understanding.

MR. EDELMAN: As far as the other parties are concerned, that testimony will have such weight as the Board wishes to give it. As far as the parties represented by Mr. Keith, the stipulation is that the witness would so tes-

tily, if sworn, and it will have the same weight as if he had made that his sworn testimony.

CHAIRMAN: That is true. Do you have other witnesses that you want to call now?

MR. STAFFORD: Mr. Felder, will you come forward and be sworn?

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

- - - - - - - - - - - - - - -

W. A. FELDER

- - - - - - - - - - - - - - -

called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q You are W. A. Felder, and your present address is Summerfield, Louisiana?

A Yes, sir.

Q You operated the boating and cabin-renting concessions on Corney Lake from June, 1940, until December 31, 1954?

A Yes, sir.

Q When did you notice the beginning of the fish-kills on the upper portion of Corney Lake; what year?

A In the fall of 1945.

Q Will you state with what regularity there have been fish-kills --- large fish-kills --- since that time, during the period you operated the concessions?

A Since 1945, there have been large fish-kills in the upper end of Corney Lake every fall. There have been other fish-kills during the year in the upper part of Corney Lake at times when there have been rises on the creek.

Q Can you, in terms of pounds, give us some idea of what you would estimate the pounds of fish that you saw dead in Corney Lake on

one of those typical kills?

A The first major kill in 1948 was in the thousands of pounds. I wouldn't know how much. It was considerable

Q How many boats and how often would you rent them prior to the beginning of those fish-kills in 1945?

A I had approximately sixty boats, and, on occasions, would rent over a hundred boats. That is, re-rent some of the sixty, to make the hundred a day.

Q About the time of the beginning of the fish-kills, were there any changes in the color or the nature of the water in Corney Lake that you observed?

A After the break in Corney Lake in 1948----

Q You are speaking of the break in the dam?

A Yes, sir. In draining down, lowering of the lake, then we noticed considerable changes in the water. We had a clearness, the water would be clarified, and the growth of plants started in deeper water.

Q Did you notice any difference in the water, and did it worsen as the years went on, with reference to the effect on the metal on your boats, on fishing lures, and items of that kind?

A Yes, sir; your boats would want to disintegrate. We had wood boats, but the nails would corrode, and they would just come apart. You wouldn't know what was going to happen.

Q Along about 1950 to 1954, can you describe the type of chains you used on the boats, and what was the effect on them as compared to prior to, say, 1946?

A Well, the chains would deteriorate; just corrode and rust away.

Q In what length of time?

A Well, you would notice in a year's time that you wouldn't have any chain; you would have to put a new chain on

Q What about the hooks on trot lines?

A Well, two or three times was practically all you could use a trot line.

Q What about artificial lures?

A Well, they would rust considerable if they weren't very well taken care of.

Q By that, do you mean that after you fished them in that lake, if you didn't wash them off---

A That's right.

Q --- then when you took them out several days later, they were ruined for all practical purposes?

A That's right.

Q Did you give up your method of making a living because of the effluents that came into Corney Lake and caused these fish-kills and the change in the lake?

A No; my tenure of time had expired.

Q You are retired?

A Yes, sir.

Q Did you tell us how many times you rented those boats a day before 1945, and then what happened after that?

A Well, just every day during the year you wouldn't say that you rented your boats a hundred times, but during the peak fishing season, you would rent them a hundred times a day before the deterioration of the lake set in, and, afterwards, you would be good if you rented all your boats.

MR. STAFFORD: I believe that is all, Mr. Felder.

CHAIRMAN: Any questions?

MR. KEITH: No questions, Mr. Chairman.

CHAIRMAN: Any members of the Board any questions? That's all, Mr. Felder.

(Witness excused)

MR. STAFFORD: Will Mr. Christy Bayles please come forward and be sworn?

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so

help you God?

WITNESS: I do.

- - - - - - - - - - - - - - - -

CHRISTY BAYLES

- - - - - - - - - - - - - - - -

called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is Christy Bayles?

A Christy Bayles. I live at Point, Louisiana, near the D'Arbonne.

Q How far below Corney Lake is that?

A About twenty miles.

Q You are a commercial fisherman?

A Yes, sir.

Q Will you explain how long you have been doing commercial fishing, and the changes that you have noticed over the area that you have been doing that commercial fishing?

A Well, I have been fishing since 1924, commer-

cially, and I have fished the D'Arbonne from the mouth of Corney and Little D'Arbonne, and above a little ways, to the mouth of the D'Arbonne, where it empties into the Ouachita River, and I have continued fishing that almost every year since 1924, up until last year. Last year, it just got so bad -- the fishing got so bad that I couldn't pay my expenses and make any money, and I didn't put out last year.

Q Are fishing licenses required from the State for commercial fishing?

A Yes, sir.

Q Can you give us an idea of what you caught in pounds of fish, as a commercial fisherman, on a day?

A Well, at the beginning, in 1924, I fished with fifteen nets, and I could catch more fish than I could sell; in other words, I could catch around six or seven hundred pounds a day with just that few nets, and on down through times, along about six or

seven years ago, I had increased my fishing tackles up to eighty-five, and I could barely catch, for the last few years, a hundred pounds at the peak of fishing season, which a hundred pounds wouldn't justify a fellow to fish with what amount of tackle and with the price it costs to make them, and the licenses.

Q What was the last year that commercial fishing seemed normal to you, the supply of them, on that section of the Drainage System? What was the last year that you had a good fish year?

A Well, it was about I imagine in the 1940's; say, 1949. Six or seven years ago, I began to notice the fish getting scarcer, and I just couldn't catch the fish that I used to catch, and it just kept getting worse, on down to year before last. I didn't fish last year.

Q You also, on your land on the D'Arbonne, have minnow ponds. How many ponds for you have?

A Yes, sir. My land goes in about a little better than half a mile of the D'Arbonne, and I

decided I would go into raising shiners, about seven or eight years ago, and I didn't have any running streams except during the winter months, little creeks, and I decided I would build my ponds and consider using a pump in the D'Arbonne to supply these ponds, especially in the dry summertime when there was no running water up around my place, and by the time I got my ponds built, I had spent quite a bit of money in my investment, and the water began to clear in the D'Arbonne, and eat out boat chains, and rust, and it didn't look like it was fit to use in ponds, and I have been depending on rainwater since, and considering drilling some wells, to supply my needs during the dry season.

Q If the water in the D'Arbonne was suitable, as it formerly seemed to be, it would be much less expensive for you to pump it from the D'Arbonne?

A It would be less expensive, and I think it

would be much more suitable for raising shiners than well water would be.

Q You mentioned the effect on the metal on your boats the last four or five years. I believe you have a sack there. Have you a sample of a chain off of your boat?

A Yes, sir, I have.

Q Will you tell us when you put it on that boat, and when you took it off, and approximately how that compared with the period prior to the early 1950's that you have described?

A Well, the early fishing, I could get as much as three, sometimes four, boats out of a chain during the lifetime of that chain. Netting is pretty rough on boats, and it also depends on the way you take care of them, and I could put a chain on a boat and get the life of three or four boats; in other words, just keep the chain, it looked like, indefinitely, up until the last few years, and this chain has been on my boat approximately four years -- maybe five, I don't remember exactly -- and the last few

years I would have to keep my boat awfully well painted up and tarred up to preserve the nails and whatever equipment the boat was made of, and this chain -- I cut it off of the head block, and it is a normal chain up where it stayed out of the water, but to keep the boat in the water, at times the stream may come up and down a little -- vary-- the slack of the chain would hang down in the water, say, three feet, sometimes more or less, and this chain is as good as new -- looked to be -- up out of the water, next to the boat for a link or two -- and then out three or four feet where it was up on the bank, it is normal, and I have it here in the sack.

Q Will you take that out of the sack and show it to the Board, and then we will enter it as Government Exhibit No. 58?

CHAIRMAN: Have that marked or tagged so that we can refer to it by number.

(Exhibit marked)

CHAIRMAN: Any objection?

MR. KEITH: No objection, sir.

CHAIRMAN: Let it be received in evidence. Go ahead, Mr. Bayles.

WITNESS: This chain was cut from the boat and left one link in the head block and up to -- it would be the third link from the head block began to corrode and pitty up, and from there on down, along on this part of it (indicating) it rusted in two; in other words, it completely went in tow, and from this link here (indicating) on out, it is pretty well normal, which was the end that I would tie up on the bank and keep out of the water.

MR. STAFFORD: I have one more question I would like to ask you, Mr. Bayles. Do you of your own knowledge know what effect this change in the waters in the D'Arbonne and the lower parts of Corney Bayou has had on the commercial fishermen using that area, and, specifically, do you of your own knowledge know that many the last few years have had to quit that means of livelihood?

WITNESS: Well, I think a fisherman to every mile has been down there practically ever since I started to fishing, and I don't think you would find one fellow to every five miles now that is even trying it, and where you find a fellow trying this fishing, he don't catch enough to pay him to stay in the business, and it is just absolutely no use to fish at the present time under the conditions.

Q And I repeat, you are some twenty miles down the stream from Corney Lake?

A Yes, sir.

MR. STAFFORD: That is all.

CHAIRMAN: Counsel any questions?

MR. KEITH: No questions.

CHAIRMAN: Any members of the Board? That's all, Mr. Bayles.

(Witness excused)

MR. STEIN: Mr. Chairman, the Government will now await the pleasure of the Board and continue if you wish, or if it is your

pleasure to adjourn, we will be happy to come back for an evening session.

CHAIRMAN: Well, the members of the Board have informed me that they would be willing to go on for awhile, even up to six o'clock, if it will avoid an evening session, and enable us to be certain of finishing tomorrow.

MR. STAFFORD: If we go on to six o'clock, we can certainly finish early in the morning, but we will not be able to get through all the witnesses we have here by six.

CHAIRMAN: Mr. Keith, how much time will you want?

MR. KEITH: Mr. Chairman, I do not anticipate that it will take us more than twenty or thirty minutes to complete our testimony, and we do not care to make a closing argument.

CHAIRMAN: Well, then, are there any other parties present who have noted their appearance at the beginning of the hearing who

will want any time for presentation of evidence or arguments? There appear to be none. Are there any other presentations to be made by the State Agencies of either Louisiana or Arkansas, and, if so, how much time will be required?

UNIDENTIFIED SPEAKER: Fifteen minutes, Mr. Chairman.

CHAIRMAN: Just a minute. Now do I understand that the Government wants to call more witnesses?

MR. STAFFORD: I have one, Mr. C. W. Hicks, whom I am afraid I will lose. If I could get him on before six, I would appreciate it.

CHAIRMAN: We will proceed with him, then.

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

- - - - - - - - - - - - - - -

C. W. HICKS

- - - - - - - - - - - - - - -

called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is C. W. Hicks?

A Yes, sir.

Q I have here that you live on Route 5, Emerson, Arkansas; that your land is located one-fourth mile west of Jolley's Bridge, and just several miles above the Arkansas-Louisiana line, on Corney Creek; is that correct?

A That is correct.

Q Now, Mr. Hicks, in the interest of time, will you outline briefly what has happened to your farm land there, within the last few years?

A Yes, sir. Well, in about 1944 -- I will go back, though, to this -- I was born in 1891, February 24, 1891, a quarter of a mile, or a

little bit over, west of Jolley's Bridge. I have been there all my life. I was raised on that, and I bought a place between where I was born and Jolley's Bridge, and I live three hundred and fifty steps from the main run of Corney, and I fished in that creek all of my life. It was given up to be one of the best fishing streams in South Arkansas; second to none. They call it Jolley's Bridge; it is old Jolley's Ferry; they used to run a ferry boat there. It is a pretty good size stream at Jolley's Ferry; a big creek.

So, along about 1944, we noticed the water began to clear up on us there, and we had always caught those big Opelousas catfish there on set-hooks, and fish for them and catch them by hand and things like that, that would weigh up to forty pounds.

Well, the first we noticed of it after the water cleared up, and began

to clear up, those fish went blind; those catfish first. Their eyes turned white as snow, and the people would go watch for them in that clear water and catch them with their hands as they would drift up to the logs.

So, that continued on for several years like that before it got too bad, and people would catch them big catfish like that. Well, they was the first fish that give way; the catfish.

Then, we had a school of catfish along about 1947 that we figured moved up from Corney Lake, and come into that while the water was clear. They stayed there from 1947; I believe the last schools I remember was along about 1950. Then we had a pollution or had a big overflow, and we didn't see any more fish. We didn't see any more trout; we didn't see any more catfish, and haven;t up until today seen any more catfish and trout.

So, my wife and I fished every year. Sometimes we would catch a little

handful after this began, and sometimes we would not get anything, but in May of 1942, we went down, she and I and our daughter, one day and we caught a nice bunch of chinquapin bream, we call them -- chinquapin, or whatever they are -- about the size of your hand. Well, we planned to go back again and have another fishing, and we had an overflow that happened along about the latter part or the middle of May, right after-- this was the first of May -- and she and I went down to the bridge, to this Jolley's Bridge, and the fish, what was left there, was all perch; all the other fish -- we hadn't seen any in a year or two -- and they was by the basketsful drifted up there, dead.

So, I decided next morning I would go up the creek, as this creek crosses my farm, and see what I could find. As I went up the creek, the creek was full of loggerhead turtles. Anybody ever fished on Corney with set-hooks, they know what I am talking about; big ones; some of them weighed seventy-five pounds.

Well, I found them dead; a lot of them; I found lamp eels, we called them, dead; found what we call waterdogs in the creek, dead.

Well, the handwriting was on the wall. So, I went on back to the house and told Mrs. Hicks what had happened, and I saw what had gone for my stock. It was the only water I had for my stock. So, I began to sell; gather up; sold down to three head of cattle; sold down to no hogs; sold all I had; and I moved these three head of cattle over to one son-in-law's, and took my horses to the other son-in-law's, down in Louisiana, and so I finally got rid of them on account of this thing; it was all the water I had.

Well, then we had a flood. Now, understand, I've got sixty acres of land there, and this place is called the Hicks Island. When the creek gets up, this water backs up and covers every bit of the land I have, excusing about ten acres; it covers fifty acres of back water, and so that was the situation; and it got

in my well; seeped into my well; ruined my well; and then came the mosquitos; and we had to stay in the house, and things like that, and it has just been from bad to worse ever since.

MR. STAFFORD: May I interrupt you just there to inquire: What did you plant on this land when farming was good?

WITNESS: When we was farming this land, from 1920 -- I bought it in 1919 -- from 1920, we raised corn; we raised cotton; we raised sorghum; we raised ribbon cane; we had chickens; we had ducks; we had geese; we had goats; we had horses; we raised some colts; raised cattle, and principally my money crop was hogs, when it come to stock; and we raised a little of everything.

Q How much cotton did you produce on it, per acre?

A Well, my average -- when we got out gin reports in 1930 to plow up cotton for the Government, my reports --- my five year average showed 560 pounds of lint per acre.

That was my five year average.

Q In other words, that's a bale to the --

A Better than a bale to the acre; and I made from fifty to sixty, and one time my son and I made six hundred bushels of corn on nine acres of it.

Q What was the last year that farming that land was productive?

A I planted that land in the spring of 1952 myself. We had an overflow on it, and it just ruined the whole thing. I saw I was up against it, and I didn't know what to do; nothing else to do. I throwed everything down and went to Union County to the County Judge and got a job on the highway. I worked there up until last May, and retired and come back, and I am just sitting out there.

Q Was that the year that your water well for your house was ruined by the seepage?

A In 1952 and 1953, and up until this past September, we didn't use the water any more, but we have since September, but in 1952,

When this first happened, we had a micromit put on the well, and have used all the water for our stock and everything. We have had to water everything through the well though this micromit. I don't know what it is; but they claim it purifies the water, and we have been using that.

Q When you noticed the bad effects of this water, did you taste it?

A Man, it stunk so bad you couldn't afford to taste it. (Laughter) Too much slime in it, and stuff like that.

Q From 1941 through 1950, what was your approximate income from the agricultural use of your land?

A My books show that from 1941 to 1951, my income, the lowest was around twenty-five hundred dollars, and the highest thirty-five hundred dollars a year.

Q On the sixty acres?

A Off of this place, with livestock and the farming, and so forth.

when this first happened, we had a micromit put on the well, and have used all the water for our stock and everything. We have had to water everything through the well though this micromit. I don't know what it is; but they claim it purifies the water, and we have been using that.

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Q From 1941 through 1950, what was your approximate income from the agricultural use of your land?

A My books show that from 1941 to 1951, my income, the lowest was around twenty-five hundred dollars, and the highest thirty-five hundred dollars a year.

Q On the sixty acres?

A Off of this place, with livestock and the farming, and so forth.

Q How much have you realized in any year since 1951?

A Well, the biggest thing I have realized was a hundred and fifty dollars. I rented it to my nephews, and they didn't make anything. I got the hundred and fifty dollars. (Laughter)

Q You also had a peach orchard on that farm prior to this ---

A I had a nice peach orchard, selling peaches every year, and I had this land all plowed up and broke up there, and this overflow backed in on it there, and in six weeks' time, every tree was dead.

Q Mr. Hicks, are you suspicious that something poisonous has been coming down that creek?

A I would hate to swallow any of it. (Laughter)

MR. STAFFORD: I believe that's all. That's all, Mr. Chairman.

CHAIRMAN: Any questions?

MR. KEITH: No questions.

CHAIRMAN: Members of the Board? That is all.

(Witness excused)

MR. STAFFORD: Mr. Chairman, I will now defer to the other witness you wanted to bring in.

CHAIRMAN: Well, I think the members of the Board are willing to continue for a while yet if we can expedite the hearing and get through before dinner. I mean, get through with today's session before dinner.

MR. STAFFORD: Is Mr. Fallen here? Will you please come forward, Mr. Fallen?

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

- - - - - - - - - - - - - - -

J. M. FALLEN

- - - - - - - - - - - - - - -

called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is J. M. Fallen; your post office address is Box 512, Bernice, Louisiana?

A That is right.

Q Mr. Fallen, state what your employment is?

A I am with the Wildlife and Fisheries Division of the State of Louisiana; commonly known as a Game Warden.

Q How long have you been that?

A Since 1949.

Q What is the section that you patrol?

A Well, my patrol area is Union Parish, but being so close to Lincoln and Claiborne Parishes, I work about as much in Claiborne and Lincoln as I do in Union Parish.

Q Do you patrol the area from Corney Lake, down Corney Creek, Bayou D'Arbonne, and that section?

A Yes, sir.

Q When you say you patrol it, will you describe how you patrol it?

A Well, I patrol it in different ways. Mostly

when the water is high enough, I go in a boat; otherwise, I go in a car to different points of landing, and walk in.

Q Now, will you describe the changes that you have noticed in the course of your patrols of that area in the spawning of fish, and when you noticed this change, and what the condition is now?

A Well, I have fished Big Corney for fifty-two years, and it has been in a class by itself up until along beginning with the year of 1942. Then in regards to the pollution that came down through Corney Lake, we have had no more fish in Big Corney other than what comes up out of Ouachita River, through D'Arbonne, in our high spring rises. We have no fish production whatever in Big Corney since 1952.

Q Now, when you float down this area in a pirogue, how do you know that there is no longer any spawning of fish in that area?

A There are no fish nests; you don't see any

fish nests. Fish don't spawn without nests, and there is no indication whatever of any nests anywhere in Big Corney, from the lake down.

Q From what time to this would you say that there has been no spawning of fish in that stretch of water from Corney Lake down to the D'Arbonne Bayou?

A Definitely since 1952.

Q Have you made any effort to satisfy yourself and have seen for yourself what you believe to be the substance that is coming into that drainage area and causing this condition?

A Yes, sir. I had the privilege of going to Magnolia in 1952, when Mr. Floyd James chartered a bus and carried I believe there were thirty-five of us on this bus, and carried us to each well in Schuler and Village Fields, and showed us where it was coming from, and a man would have to wear a mask to stay in there very long, but we did see where the majority of it was coming from.

Q I will ask you just one other question, and that is: Will you describe the effect that this charge in the water has had on mussels and some of that type of life that you have observed?

A It killed all of the mussels in Big Corney from the lake down. We had shoals of mussels all through the shallow water and the sand bars where they collected, but the biologists tell me that this concentration of whatever it was was so strong until it killed them in the shell, and the shell never did open; the mussel was dead. It ate out the little eye in the curl on the top of the mussel shell.

Q Have you seen any fish-kills in Corney Lake and in the stretch below it?

A Beg your pardon?

A Have you seen any of these fish-kills we have heard so much about today in Corney Lake and the area below it?

A Yes, sir. I have seen the fish-kills down as

far as twenty-five and thirty miles from the lake. Of course, you see dead fish along on the creek quite often, but it could be in small quantities, from various things. People catch them and turn them loose, or something like that, but the actual kills, that drifted up in the drifts, came on down as far as the mouth of Little Corney.

Q And those were abnormal amounts of dead fish?

A That was abnormal fish, killed in an abnormal way.

Q Now, will you explain why fish come up from the Ouachita River in times of spring rise and why occasionally there seems to be some repopulation of that area?

A Well, in the spring, our fish spawn, and they go upstream hunting shallow water. They must have 70 degrees Fahrenheit to hatch in. For that reason, they seek shallow water, and they go as far up the stream as they can go, until they find this water.

Q Now, fish coming up, will they, if they

reach those areas, actually spawn in them now?

A In the normal water, but they won't now.

MR. STAFFORD: I believe that is all.

CHAIRMAN: Any questions?

MR. KEITH: No questions.

CHAIRMAN: Members of the Board? That is all, Mr. Fallon.

(Witness excused)

MR. STAFFORD: I call Mr. F. S Hamilton.

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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F. S. HAMILTON

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called as a witness by counsel for the Government, having been first duly sworn, was examined

and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is F. S. Hamilton, and you are President of the Union Parish Game and Fish Commission; is that correct?

A Yes, sir.

Q In your official connection there, will you state briefly what you have stated concerning the fishing in this area from Corney Lake down Corney Bayou and Bayou D'Arbonne?

A Well, I am not a real old man, but I can remember back past fifty years that I started fishing in Bayou D'Arbonne, and I have fished all the way, including Corney Lake, to the mouth of D'Arbonne, where it empties into the Ouachita River, and in the past, it has been a great pleasure, especially in my young days, when fish were so plentiful, but within the last few years it is beginning to slow down, and in the last two or three years, I have quit fishing altogether, because you

cannot catch any fish. In connection with our Club in Union Parish, I hear that complaint from lots of our members, because I come in contact with them every few days.

Q Can you describe the condition that you noticed in these waters during the period that we have heard that this pollution or this effluent started reaching those sections of the Drainage System?

A Yes, sir. I notice the water is lots clearer than it used to be. If we have a little muddy rise and the water colors up, within a few days it will get clear again.

Q I believe you are also interested in this proposed new reservoir, Lake D'Arbonne?

A Yes, sir, I am deeply interested in that. One reason I am interested in it is because of the sport, and another one is in the agricultural phase. I have lots of cattle, and I realize my neighbors are getting very short of water, and my opinion is that if this salt water comes down, we had just as well not build this lake.

MR. STAFFORD: I believe that is all, Mr. Hamilton.

CHAIRMAN: Any questions, Counsel?

MR. KEITH: No questions, sir.

CHAIRMAN: Members of the Board? That is all, Mr. Hamilton.

(Witness excused)

MR. STAFFORD: May I call Mr. Robert L. Hicks?

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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ROBERT L. HICKS

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is Robert L. Hicks, and you live on ninety acres of land on Big Corney Creek, about four miles north of the Arkansas-Louisiana line, near Jolley's Bridge; is that correct?

A Yes, sir, that is correct.

Q Will you explain what you were doing on those ninety acres of land and what occurred to you?

A Well, we used it mostly as a dairy farm. We had a lot of other land rented that we also used, and in 1952, pollution hit us; we felt a little results of it. In 1953, it almost got us; and, in 1954, it completely got us.

Q When you say it completely got you, what happened?

A We quit.

Q How many head of cattle did you have?

A We had a total of about a hundred and thirty or forty head.

Q What did you do with them?

A We lost ninety-six head of them; they died.

Q What happened to the timber along the creek where the creek overflowed?

A It began to die, and also, the land it backed out on, approximately sixty or seventy acres, it ruined it totally as a pasture and as farm land.

Q And what year were you put out of the dairy business?

A The last of 1954; somewhere along in there.

MR. STAFFORD: I believe that is all.

CHAIRMAN: Any questions?

EXAMINATION

BY MR. BIGLANE:

Q Mr. Hicks, you say you lost ninety head of cattle?

A Ninety-six head, I think.

Q Ninety-six head. Were these cattle diseased?

A No, sir.

Q Well, what do you attribute their death to?

A Well, we don't have any other water supply except Big Corney Creek. We don't have any clear water except Corney. We totally depend on Corney for watering purposes, and we lay it to the pollution of Big Corney.

MR. BIGLANE: That is all.

CHAIRMAN: Did you have a question, Mr. Keith?

MR. KEITH: I have one question; yes, sir.

CROSS-EXAMINATION

BY MR. KEITH:

Q Mr. Hicks, aren't you a plaintiff in a lawsuit now pending in the United States District Court for the Western District of Arkansas, against the Operators in the Village and Schuler Fields, seeking to recover damages to your dairy farm?

A I don't think I am in Schuler Field; I am in the Columbia County Village Field, yes, sir.

Q Village and Magnolia Fields?

A Yes, sir, and Atlanta.

Q And of course all those defendants have denied your claims?

A That is right.

MR. KEITH: That is all.

CHAIRMAN: Any other questions?

MR. STAFFORD: No more questions of this witness.

CHAIRMAN: That is all, Mr. Hicks.

(Witness excused)

MR. STAFFORD: May I call Eddie L. Wilson? Is Mr. Wilson here? I wanted to prove just one thing with Mr. Wilson. I have his sworn statement. With the Chairman's permission, I would like to ask if Mr. Keith would agree to it being admitted. I would like to prove by Mr. Wilson, who is Sanitarian for Claiborne Parish, Homer, Louisiana, that he was called to inspect the dairy of Mr. Robert Hicks at the time of this cattle loss, and that he found the land and the water supply such that it was unsuitable

for a dairy, and he could not approve it for further use as a source of milk for this Parish.

MR. KEITH: We will agree, for the people whom we represent, that if Mr. Wilson were present and sworn he would testify substantially to the contents of this affidavit.

MR. STAFFORD: Well, then, let's just confine it to whatever that affidavit states, and we would like to offer it in evidence.

CHAIRMAN: The statement will be received for what it is worth under that statement.

MR. KEITH: I am quite sure that is what he would testify to.

MR. STAFFORD: Will you mark that Government Exhibit Number 59?

(Document marked Government Exhibit No. 59, and is as follows:

AFFIDAVIT

CLAIBORNE PARISH)
) SS
STATE OF LOUISIANA)

Before me, H. I. Barber, a Notary Public,

personally appeared the undersigned Eddie L. Wilson, in the Parish and State aforesaid, who being first duly sworn, deposes and says:

My name is Eddie L. Wilson. I am employed as Sanitarian for the Claiborne Parish Unit, Homer, Louisiana. I inspect dairies serving the Parish both in Louisiana and in South Arkansas for sanitation. I was called in June, 1954, to inspect the dairy of Robert L. Hicks at the time of their loss of cattle. I tasted the water in Corney Creek and it had a drawing taste like a very strong persimmon. I do a lot of fishing and from 1945 to about 1950 I could catch fish anywhere and any size in Corney Creek, Corney Lake, and Corney Bayou below to Bayou D'Arbonne. I have not fished much since 1952 because there are no fish in these waters.

(Signed) EDDIE L. WILSON

Subscribed and sworn to
before me this 16th day
of January, 1957

(Signed) H. I. BARBER
Notary Public

MR. STAFFORD: I would like to call Armand F. Rabun.

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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ARMAND F. RABUN

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Mr. Rabun, will you kindly state your name, your occupation, also your avocation, and your particular interest in the matters we have been discussing today?

A My name is Armand F. Rabun; I am from Farmerville, Louisiana, and at the present time

I am a practicing attorney at Farmerville, and am the immediate past President of the Louisiana State Wildlife Federation, Incorporated. I am presently serving on the State Board of Directors of such Wildlife Federation. I am also affiliated with the Union Parish Sportsmen's Game Association, and am Chairman of the Board and Commission of the Bayou D'Arbonne Lake Watershed District, appointed recently by the Governor of the State of Louisiana as a result of legislation which was passed at the recent session of the Legislature of the State of Louisiana, creating the Bayou D'Arbonne Watershed District.

That legislation creating the Bayou D'Arbonne Watershed District was passed during the 1956 session of the Legislature. In addition to the enabling legislation, of course the necessary appropriation -- that is, part of the necessary appropriation -- was passed by the Legislature at

that time, and approved and signed by the Governor, with a commitment on any additional funds that might be needed to complete the project.

At the present time, this work in connection with the construction or the establishment of this impoundment of fresh water is proceeding by the Engineers of the Department of Public Works, who are establishing the static water line, as well as the maximum dam water line, and tying in this contour with the various sub-section and section lines, together with the property lines.

Interest in this particular project arose some fifteen or twenty years ago, and legislation recently passed was the culmination or the conclusion of the efforts of many organizations, sportsmen and civic organizations, throughout this area, for the purpose of establishing some program for the conservation of fresh

water in this particular district.

MR. STAFFORD: From your official position, is it your opinion that the waters in Corney Creek coming into this Drainage System on which this lake will be built are polluted?

WITNESS: That is my unqualified opinion at the present time.

Q Do you have an opinion as to the cause of that pollution, based upon all this investigation and study which has been carried on?

A I have been associated with the various groups who have been investigating the sources of pollution to the Bayou Corney Watershed, and have on several occasions visited several of the fields south of Magnolia, in the State of Arkansas, and, knowing the terrain, the topography, that is, from a study of the map, as I do, have seen and observed the sources, in my opinion, of the pollution of the watershed of Bayou Corney.

Q Approximately how much of the water going into this proposed Lake D'Arbonne will come down the Corney Bayou from Corney Lake and the upper drainage system?

A According to the Engineers who have made a study of this particular project, and with whom the Board or the Commission works, with the Department of Public Works of the State of Louisiana, it is felt that approximately two-thirds of the water which will go to form this lake, if and when it is built, will come through and from the Bayou Corney Watershed, located in Arkansas and Louisiana.

Q In your personal opinion, do you question further action to build Lake D'Arbonne unless the pollution coming down this creek can be reduced to the minimum?

A Unless there are some steps taken to either control or abte the present pollution that is coming into the Corney Watershed, which would form the major portion of the source of water for this proposed fresh water im-

poundment, or reservoir --- unless some steps are taken to definitely control or abate that source of pollution, it is felt by the Department of Public Works of the State of Louisiana, their Engineers, and also this Board and Commission, that it would be impracticable to go to the extent of the expenditure of some three million dollars to construct a lake that would in fact hold only salt water.

Q Will you state the purposes of use that are proposed for this proposed Lake D'Arbonne and for which this first one million dollars was made available? I mean, not the preliminary million dollars, but what were the purposes stated as to the uses that would be made of the lake when built?

A The purposes for which it is sought, or was sought, to construct an impoundment of this nature is for use of the waters for recreational purposes, for agricultural purposes, for industrial purposes, and for

municipal purposes where and when they are needed.

I might call your attention to the fact that the water level in this section of the country, particularly in and around North Louisiana, the water table has fallen tremendously in the last few years, and is continuing to fall over the past several years, to such an extent that fresh water is becoming a premium in this section of the country, and it was with an idea of conserving these fresh water supplies from the various watersheds that the Project was first thought of, that the Project was finally concluded to the stage that it is and the epoch in development that it is at the present time.

Q In your official position with the Commission, do you consider that the waters now coming down the D'Arbonne from Corney Lake and Corney Bayou are suitable for recreational purposes?

A I do not.

Q Agriculture?

A I do not.

Q Municipal or water supply uses?

A I do not.

Q For industry?

A No, sir.

Q Mr. Rabun, is there anything else that you would like to tell this Board?

A I might enlarge or lengthen the statement in connection with some of the facts that have been touched upon lightly by some of the commercial fishermen heretofore testifying from this stand, to say that in the watershed of Bayou Corney, which, together with Little D'Arbonne and Middle Fork, flows into a stream at or near Farmerville, Louisiana, to form Big Bayou D'Arbonne, which in turn flows into the Ouachita River, that in connection with my association with the sporting organizations and as an avowed fisherman and hunter, that I am personally ac-

quainted with most of those who for the past fifteen or twenty years have sought to engage in commercial fishing along those streams, and I do know that prior to, say, the year of 1950, or the late 1940's, that commercial fishing was considered as a profitable enterprise along the streams; but that within the last five or six years, particularly, that most of those who were engaged in commercial fishing, and who supplemented their livelihood with the income from this commercial fishing, have been put out of business. The commercial fishing no longer exists along those streams. Of course, sport fishing at the same time and likewise has absolutely been depleted.

And as to the cause and the reason why such has ceased to exist, it can only be concluded from facts that you actually observe; and I have, on several occasions, actually observed the fish-kills along these streams, and have seen, on several occasions, hundreds of thousands of pounds of fish piled

up --- when I say "fish", I mean principally what we call buffalo and catfish --- piled up in drifts along those streams as a result of these fish-kills; and that has existed all the way from Cornay Lake on down through Bayou Corney, Bayou Big D'Arbonne, and even so far as the Ouachita River. Are there any further questions?

MR. STAFFORD: I have no questions on that, but you mentioned, when I talked to you a few minutes ago, that you had been commissioned to bring some petitions to the Board that you would like to submit incidental to your testimony, but as action of the Board that they wished brought to the attention of this hearing Board.

MR. RABUN: In connection with my testimony, I would like to submit --- and this is, I feel, an official document -- it has been certified to --- a resolution by the Union Parish Police Jury, in connection with this particular question, which was passed at a regular

meeting of the Union Parish Police Jury on January 8, 1957, which has been signed by the President of the Police Jury, and certified as a true and correct copy by the Secretary of the Police Jury, in connection with the manner and the outlook that the official organ of the Parish feels toward this question.

CHAIRMAN: Do you want to have that marked as an exhibit and then offer it?

MR. STAFFORD: Yes, if you will.

CHAIRMAN: Let Counsel examine it.

MR. STAFFORD: What number does it have?

CLERK OF COURT: Number 60.

MR. RABUN: Also, I would like to have ---

MR. STAFFORD: Just one moment; will you pass that to Mr. Keith? (Complies) That is all right. You can go ahead, I believe, while he is examining it.

CHAIRMAN: That is all right; go ahead.

MR. RADUM: Also, I would like to offer as an exhibit in connection with my testimony, corroborative, if for that purpose only, an affidavit of one J. G. Long, a resident of Union Parish, Louisiana, who has, for a number of years, operated a recreational center or fishing camp on Bayou Corney, some twenty miles south of Corney Lake, and would like to offer that as an exhibit, or as the testimony of this affiant, to the effect that if he were present that he would testify to the facts revealed by such affidavit.

MR. STAFFORD: Will you designate that as Government Exhibit No. 61, and pass it to Mr. Keith? (Document so marked and presented for examination) Are there any other items?

MR. KEITH: With respect to this affidavit, again, we will agree that if this affiant were present and sworn, that he would testify

substantially to the facts set forth in the affidavit.

MR. STAFFORD: We offer it solely for that purpose as an adjunct to ----

CHAIRMAN: Let's dispose of the exhibits in order. How about Exhibit 60? Is there any objection to that? That is the resolution of the organization.

MR. KEITH: Mr. Chairman, there is no doubt in my mind but this is a correct copy of the resolution adopted. I don't know just what effect it has here. I will agree that it is a correct copy of the resolution that was adopted by the Union Parish Police Jury.

CHAIRMAN: It will be received as an unsworn statement for whatever it may be worth, subject, of course, to the qualification that it is not here presented as sworn testimony of this witness. I don't understand, Mr.Rabun, that you are testifying of your own knowledge to the correctness of the facts stated in this resolution?

MR. RADUN: No, sir. I am just presenting it as a certified official document of the Union Parish Police Jury.

CHAIRMAN: Well, it will be received and given whatever weight the Board thinks it is entitled to.

MR. STEIN: Mr. Chairman, I would like to suggest that that resolution not be put in as a Government Exhibit, and that affidavit from Mr. Long be renumbered accordingly; that that just be put in as a presentation you are making to the Board.

CHAIRMAN: Well, then, that comment applies to both of these exhibits?

MR. STEIN: No, sir; we would have liked to have had Mr. Long here as a witness for the Government, but, because of press of other business, he had to be out of town today.

CHAIRMAN: You wish to adopt the affidavit as a part of your case?

MR. STEIN: Right.

CHAIRMAN: Then the Clerk

will re-number that resolution, and give it a special number as an exhibit presented by this witness. What number will you call it?

CLERK OF COURT: Rabun "A"

CHAIRMAN: Mr. Rabun's Exhibit "A". Then if there is no objection to that, it will be received for whatever it may be worth as an unsworn statement.

CHAIRMAN: Then the other exhibit will be re-numbered as Government Exhibit No. 60, and it is admitted by Mr. Keith that the affiant, J. C. Long, would testify as stated in the affidavit if he were present?

MR. KEITH: Correct, sir.

CHAIRMAN: It will be received under that condition.

MR. STAFFORD: I have no further questions of Mr. Rabun.

CHAIRMAN: Any questions, Mr. Keith?

MR. KEITH: None, sir.

CHAIRMAN: Any members of the Board any questions? That's all, Mr. Rabun.

MR. STAFFORD: May I call Mr. Houston Hall, please?

CHAIRMAN: Well, I don't know how much longer the members of the Board want to continue. It is all right with me. Do you want to go a while yet; a few minutes? How much longer will you require, Mr. Stafford?

MR. STAFFORD: Mr. Chairman, I have really been trying to run these through so fast I have had no chance to recapitulate. I was just trying to get them up here. I can take a few minutes and tell you, but I will have to look at my list. I had thirty-five people here originally.

CHAIRMAN: I think we should ask, not only the members of the Board, but the Clerk and the Recorder how much longer they feel able to continue here. How about you, Mr. Smith; are you willing to go a while yet?

CLERK OF COURT: Yes, sir.

CHAIRMAN: And how about the Recorder?

RECORDER: Yes, sir.

CHAIRMAN: Members of the Board? Do you want to go on a while? Very well; go ahead, Mr. Stafford, but try to speed it up and get through with this line of examination.

MR. STEIN: Mr. Chairman, may we have a recess of five minutes so we may make an appraisal of our other witnesses? I think also Mr. Keith would like that time, too.

CHAIRMAN: Well, now, let me ask about Mr. Wood, for the Arkansas Water Pollution Control Commission. Is he still here?

MR. STEIN: Yes, he is here.

CHAIRMAN: Can you make your statement in the morning, Mr. Wood?

MR. WOOD: Yes, sir.

CHAIRMAN: We will defer that until the morning, then. Well, what about these other witnesses; can they just as well go over until the morning, or is it urgent to have them----

MR. STEIN: If we have five minutes, we will be able to ascertain that, sir,and be able

to give you a report.

CHAIRMAN: We will take a five minutes recess.

R E C E S S

CHAIRMAN: The hearing will come to order. You may proceed, Mr. Stafford.

MR. STAFFORD: Mr. Houston Hall, will you be sworn, please?

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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HOUSTON HALL

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q Your name is Houston Hall, and I understand

you are currently Mayor of Junction City?

A Yes, sir.

Q How long have you lived in this area?

A Forty-two years.

Q Have you fished the Corney Creek, Corney Lake, Corney Bayou Watershed?

A Yes, sir, I have.

Q Describe the fishing in there prior to 1946?

A Well, I did all type of fishing on Corney Creek and Corney Lake, or Corney Bayou, prior to 1946 and 1947, and the catches were very fine at all times, and I have pictures here of some fish that I caught about 1946 or 1947, which were trot-line fishing, and some catfish that were in the weights of twenty-seven to thirty-three pounds. But after ---

Q May I interrupt you just a minute. You said the fishing was good. On a typical fishing trip, can you describe how many bass, or how many bream, or how many ----

A Close to the limit; sometimes you had to be

careful to keep from going over it, which was about fifteen bass or fifty bream.

Q Now, you mentioned you had two pictures taken of you, approximately when?

A Either in the spring of 1946 or 1947; I don't recall exactly which year.

MR. STAFFORD: We offer these two pictures for identification as Government Exhibits Nos. 61 and 62, and if there is no objection ---

CHAIRMAN: Is there any objection?

MR. KEITH: Mr. Chairman, I am sure that these are fish that were taken from Corney Lake, and I don't want to be unreasonable about this thing at all, but I don't see the significance of introducing pictures without ---- first of all, it hasn't been established who took the pictures, whether he is a professional photographer, or any of the normal procedure. However, if the Chairman feels that they are of significance, well, then, we would have no objection. But--

CHAIRMAN: I think that within the strict rules of evidence those photographs, in order to be admissible, would require at least a little further identification by this witness to connect them with the case. So perhaps Government Counsel can at least supply that, and then we will--

MR. KEITH: I will waive that. If the Chairman feels that they will be helpful, I won't even require that.

MR. STAFFORD: Suppose you show them to the Chairman.

CHAIRMAN: Well, as far as the photographs are concerned, it isn't necessary to have the photographer identify them. If this witness can say that those pictures correctly represent what they show, that would render them admissible from that standpoint. But still the connection with this case would need to be established.

MR. STAFFORD: Well, we will withdraw the pictures. We may be able to find the photographer who took them and we will offer

then.

MR. KEITH: They are big fish. (Laughter)

MR. STAFFORD: Mayor Hall, do you still fish in Corney Creek and in this same area?

WITNESS: No, sir, I haven't in the last ---

CHAIRMAN: Let's clear up the matter of these exhibits. Mr. Hall, will you repeat, or state if you didn't before, just when and where you caught the fish shown in these pictures?

WITNESS: These fish were caught on the south border line of the lake Project itself. It wasn't over three or four hundred yards below the Project line on Corney Creek.

CHAIRMAN: That is below the outlet of the lake?

WITNESS: Yes, sir.

CHAIRMAN: And when?

WITNESS: In 1946 or 1947.

I don't have a date on them, and I am not for sure about it, but one or the other of those years.

CHAIRMAN: And you caught them yourself?

WITNESS: Well, it was a party of four of us that were fishing, of which three of us are in the pictures, and the other one did the taking of the pictures with just a common camera.

CHAIRMAN: Were you present when they were caught?

WITNESS: Yes, sir.

CHAIRMAN: And do these photographs correctly show the appearance of the fish?

WITNESS: Yes, sir.

CHAIRMAN: Well, then, I think they are admissible. They will be received.

MR. STAFFORD: Do you still fish this area?

WITNESS: Well, I haven't--- I went once or twice last year, and once or twice

the year before, but it was of no avail, and I have just about signed off as far as that area on fishing. It is very unpredictable as to whether you might be able to catch a fish or not, and a fisherman likes to have at least some hopes that he is going to do a little something before he goes, and mine have just about diminished.

Q Have you seen fish-kills in Corney Lake?

A Yes, sir, I have. I believe in January --- I am not for sure the exact date -- I was present at the time that there was a great number of fish that were killed.

Q Approximately what year?

A It was in 1953, I believe, and [illegible]ed up close to two hundred fish in a small area, above the lake, off of the highway bridge there, at that time; and the bottom looked like was literally covered with all types of fish; bream, bass and crappie.

MR. STAFFORD: That is all.

CHAIRMAN: Any questions?

MR. KEITH: No questions.

CHAIRMAN: Any members of the Board? Mr. Hall, I have one question. A previous witness referred to a certain species of fish as "trout", and if my understanding is correct, in this part of the country when you commonly talk about "trout" you are referring to black bass; am I right?

WITNESS: That is right; yes, sir.

CHAIRMAN: You don't have -- in these streams like Corney Creek -- you do not have any brook trout or rainbow trout?

WITNESS: No, sir. In other words, what we speak of -- actually, some of them call them trout, and some of them call them bass, but, really, as far as I know about it, the two species that we have are large mouth and small mouth bass.

CHAIRMAN: And that is what this previous witness was referring to as "trout" ?

WITNESS: Yes, sir.

CHAIRMAN: That is all.

RE-DIRECT EXAMINATION

BY MR. STAFFORD:

Q When you noticed the change in Corney Lake, did you notice any effect on your fishing lures?

A Well, yes, sir, after it got so clear I did notice a change in it, but I thought that it was due to the metal of the bait manufacturers that was giving us an inferior quality. I didn't at that time detect it or pin it down to the fact that it was the water, because I didn't think that it was that strong to -- it didn't give me much of an idea. I thought that it was an inferior quality of the metal of the product itself.

Q What convinced you that you weren't being sold bad lures?

A Actually, I noticed that after I quit fishing, well, my lures seemed to hold up a little bit better in other streams, than they did in that particular stream of Corney Creek, or Corney Lake.

MR. STAFFORD: That is all.

CHAIRMAN: Any other questions? That is all.

(Witness excused)

MR. STEIN: Mr. Chairman, the Government does not have any more witnesses tonight, and our best present judgment is that we may have about seven more witnesses tomorrow, which should not take more than forty minutes, and unless untold circumstances arise, we do not presently intend to make a closing statement.

CHAIRMAN: Then how much time will counsel for the Government and other parties require for closing arguments, if any?

MR. STEIN: We do not intend to make a closing argument unless other closing arguments are made.

CHAIRMAN: Mr. Keith, how about you?

MR. KEITH: We do not expect to make a closing argument, Mr. Chairman.

CHAIRMAN: Well, then, we should be

able to conclude the presentation of the case in the forenoon; is that right?

MR. STEIN: Yes, sir.

CHAIRMAN: And we will have to allow some time for deliberation of the Board after the parties rest, and will there be sufficient time to do that, without trying to hold a session later this evening, so that we can wind up the whole hearing sometime tomorrow afternoon? Do you think that will be possible?

MR. STEIN: Well, as far as the Government is concerned, we think it will be possible, depending on how much time, of course, the Board would need for its deliberations.

I think we also, if the Board would like a suggestion, might wish to ascertain how much time the other folks will have to ascertain the total amount of time the Board will need for the presentation of statements. As I said, the Government will need about forty minutes.

CHAIRMAN: Well, the principal other parties represented here are the Oper-

ators represented here by Mr. Keith, and he has stated that he won't require any considerable amount of time. And then aside from Mr. Wood, who is still waiting to present a statement for the Arkansas Water Pollution Control Commission, there do not appear to be any parties who want any more time. So, it seems as though we ought to be able to conclude tomorrow without having a session later this evening.

Now, what is the pleasure of the Board about returning in the morning? Is it feasible to get here by nine-thirty, considering that we have all got to go to Shreveport and back again? How about that, members of the Board? Should we try to get here by nine-thirty, or make it ten o'clock? Is nine-thirty all right? All right; we will take a recess, then, until nine-thirty o'clock tomorrow morning.

RECESS

CHAIRMAN: The meeting will be in order. Are Counsel ready to tell us now how much more time you might want, and how about the Government?

MR. STEIN: The Government will need not to exceed thirty more minutes.

MR. KEITH: We will need approximately thirty minutes, Mr. Chairman.

CHAIRMAN: Now, are there any other parties who will want time? Well, if not, Mr. Stein, you may proceed. Do I see a signal back there? Oh, yes, Arkansas. Yes, we have you on the program. Well, what is the pleasure of Counsel for the Government; do you want to proceed with your case, or do you want to ---

MR. STEIN: Yes, we would like to proceed, if we might.

CHAIRMAN: Well, Mr. Wood, you are going to be here? You can wait until the other Counsel are through, can you?

MR. WOOD: Yes, sir.

CHAIRMAN: Well, O. K. We will proceed with the regular order, then. So the Government may go ahead.

MR. STEIN: Mr. Stafford will present this portion of the Government's case.

MR. STAFFORD: Will Mr. Jennings come forward and be sworn?

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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S. G. JENNINGS

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q State your full name, Mr. Jennings?

A S. G. Jennings.

Q Mr. Jennings, locate where you live with reference to the Louisiana-Arkansas line and Corney Creek.

A Well, I live in the southeast corner of Columbia County, I will say approximately a mile and a half north of the Louisiana line.

Q In the interest of time, I believe you have a hundred and twenty acres of land at that point, and that you were by pursuit a trapper?

A Yes, sir.

Q Now, tell us what has happened to your trapping on the Corney Creek area where you live?

A Well, it's just gone. Everything has been killed in the creek, and the fur-bearing animals has done quit traveling it. They don't feed there any more; there's nothing there for them; not even a frog. This land that my neighbors live on there, the

Hicks's and the Ware's; I notice their farms in particular; I visit them a whole lot, and this land I have noticed where it has overflowed in the last -- I'll say since 1951 -- it has quit producing.

MR. STAFFORD: I believe that is all, Mr. Jennings. Thank you. I am ready to excuse this witness, Mr. Chairman.

MR. KEITH: No questions, Mr. Chairman.

CHAIRMAN: Just a minute. Have the members of the Board any questions?

EXAMINATION

BY THE CHAIRMAN:

Q Mr. Jennings, when was it you said you first noticed this falling off in the fur-bearing animals?

A I will say in 1948.

Q And did you connect that with something that had to do with the run-off from these oil fields?

A I do.

Q What brought that to your attention?

A By the water being so clear; fish dying in it; turtles; everything; every living thing. There's nothing down there but salt water mosquitos. That's all there is up there now; salt water mosquitos. Around that water.

Q Was your trapping conducted on the land that was subject to the overflow from that run-off?

A Yes, sir. No, sir; mine wasn't; I live on the hills. I live a mile and a half from the creek.

Q Well, it was on that land that was affected by that overflow that you noticed the dropping off in the fur-bearing animals?

A Yes. I trapped on that stream.

Q What kind of animals do you trap in that territory?

A Coon and mink.

Q Well, what about the trapping in other areas that were not subject to that overflow?

A It is good.

Q Did the animals hold up there?

A Yes, sir.

MR. STAFFORD: Pardon me, Mr. Chairman. I didn't go into that, but the point, if it will be directed to it, I think his point is that these animals cannot drink the water at the Corney Creek, along that area, and they have moved to where they can get good water.

MR. STAFFORD: Mr. Jennings, what are the facts with reference to what you believe the reason that there is no trapping along this Corney Creek area?

WITNESS: Well, the animal can't drink the water: there's nothing grows in it that he can eat, and therefore he's done got sensitive to it and left, and come to the flowing streams where the fish and his food value comes from.

MR. STAFFORD: I have one other question, if it please the Board. Mr. Jennings, you know of your own knowledge that along this

drainage area there are lots of people that earn a part or all of their livelihood in trapping?

WITNESS: Yes, sir.

EXAMINATION CONTINUED

BY THE CHAIRMAN:

Q Well, then, it wasn't something that had to do with the overflowing of land, Mr. Jennings? You think that, as Counsel suggested, it was due to the fact that this water was not fit for the animals to drink; is that your idea?

A Yes, sir.

Q Did you observe them in their habits as to using the water? Did you notice whether they would drink it or not, after the water became salt-laden? Did you notice whether they would drink it or not?

A Well, no, there are lots of little streams up there around me that run into that creek, and I have looked for their tracks

on the creek bank, and I never could find their tracks. I don't figure they ever went down there.

Q So, you noticed that there was an absence of tracks along the stream bank?

A They just quit walking it.

Q Well, where else did they have to go for water? How far would these animals have to go, if they wouldn't use this water; where could they get water?

A Well, there's Pigeon; what we call the Poole Branch; the Ben Poole Branch. There are several little branches up there; Clear Creek.

Q So, in these areas where they could get unpolluted water, the population of these fur-bearing animals still kept up; is that right?

A Yes, sir. These clear streams kept them up.

CHAIRMAN: Any other questions? That is all. (Witness excused)

MR. STAFFORD: Mr. Urban R. Lawrence, please. Is Mr. Lawrence here? If not, is Mr. Charlie Sayers here? Is Mr. Henry Hodgen here? Is Mr. H. C. Whitman here? Come up, please, Mr. Whitman, and be sworn.

CLERK OF COURT: Do you solemnly swear that the testimony you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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H. C. WHITMAN

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q You are H. C. Whitman. Your residence is 216 Keller, Homer, Louisiana. Will you tell the Board what your occupation is?

A I have the concession of the Corney Lake

playground.

Q Since what date and to what date?

A January 1, 1955.

Q To date?

A To date.

Q How many boats and cabins do you have for rent at Corney Lake?

A I have got about thirty-six boats and five cabins.

Q Now, since you have been the operation of the concessions on the lake, have you seen these large fish-kills that we have been talking about, since January 1, 1955?

A I have.

Q Just describe one or two incidents to indicate something about the size of these?

A Well, in August of 1955 we had our largest kill since I have been out at the lake, and I wouldn't hardly know how to describe the amount of fish that was killed. It's such a large amount that it would be in the tons of fish, in the place of just a few fish

that you would see.

Q What measures did you have to take to clean up the area around there?

A Well, we had some hooks on poles, and we would take the motor and boat and hook these fish and drag them off down to the spillway so they would go down the stream; get away from the camp. It got to smelling so bad, we couldn't stay with them.

Q Have you tasted the water in Corney Lake now?

A Yes, sir.

Q How would you describe it?

A Well, it is a kind of a slick, slimey, flat taste.

Q What is your experience with reference to the chains on boats?

A Well, they will last possibly one season.

Q In months what would you say that is?

A Possibly six months.

Q I understand also that --- Well, describe the trouble you have had with duck hunting

decoys?

A Well, whatever this is in the water eats up the strings that they anchor the decoys with, that they float them on, and they put the weights on; it eats the strings up, and also eats the hooks or swivels that they fasten to the decoy, and the little hook in the decoy which is --- I don't know, it's some kind of a wire material; it will eat those wires up, and they get loose and float off.

Q Those are brass swivels, incidentally; isn't that correct?

A Yes, sir. It will eat the lines up, too, just a common string, a treated string, it will eat the strings up.

Q You do your own repairs on your outboard motors?

A Yes, sir.

Q Tell the Board about a new outboard motor that you started using on the lake just this past spring?

A Well, I bought a new seven and a half Johnson in the spring, when the fishing season started, and I have replaced two head gaskets on this motor, due to the pollution in the lake. Now, they might not understand why I say it;s that motor particular, because I have a five and a half motor, and a seven and a half, but it all goes to the seven and a half. The gasket on the seven and a half motor has a wire material in the gasket, and the five and a half motor has just a plain asbestos gasket; no wire in it; and it will eat the wire out of the seven and a half, and it don't bother the five and a half.

Q Do you consider fishing good in Corney Lake?

A No, sir.

Q You have lived in this area all your life. You knew this area before the pollution of this system?

A Yes, sir.

MR. STAFFORD: I have no

further questions.

CHAIRMAN: Any questions, Counsel?

MR. KEITH: No questions.

CHAIRMAN: Members of the Board?

EXAMINATION

BY THE CHAIRMAN:

Q How long would a chain last on a boat in the days before you noticed this trouble with the water?

A Well, I couldn't say: I didn't keep a boat out there before that; before I got the lake.

Q But you didn't notice the corrosion until after the water got some of this material in it?

A No, sir.

Q Contaminating material; whatever it was?

A Yes, sir. It's bound to be some kind of acid, because salt water won't eat up an ordinary string, and acid will eat a string.

Q And what year did you say you first began to

notice that?

A Well, I took the lake over on January 1, 1955. Of course, I started noticing it after I took the lake.

CHAIRMAN: That is all.

RE-DIRECT EXAMINATION

BY MR. STAFFORD:

Q I qualified you as having known this area prior to that. Were you ever at Corney Lake before you took over the concession?

A I fished it lots of times.

Q I believe, if I may, the Chairman's question was directed not only to your experience at the lake, but when did you first notice a change in the waters of Corney Lake?

A Well, you might say right after I came out of the Army in about 1943.

Q Did you continue to fish it on up until you---

A I did.

Q You have been sitting here, and you have heard the development of the effect on that lake. Do you agree in substance with the

general nature of those statements?

A I do.

MR. STAFFORD: I make it that way rather than to bring him out in detail, may it please the Board, but he can bear out these other witnesses if desired.

CHAIRMAN: Any other questions? That is all, Mr. Whitman. (Witness excused)

MR. STAFFORD: Mr. Muse, please. Is Mr. Muse here? I am afraid there goes the last chance to prove our pictures. I will ask Mr. Barber to take the stand, please.

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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HOWARD I. BARBER

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called as a witness by counsel for the Government, having been first duly sworn, was examined and tes-

tified as follows:

DIRECT EXAMINATION

BY MR. STIFFORD:

Q You are Howard I. Barber. You are Secretary Treasurer of the Claiborne Parish Police Jury. How long have you occupied that position?

A Since June 5, 1940.

Q Some of these folks are not familiar with what a Police Jury is. Will you tell them in a Louisiana Parish what the Police Jury does?

A The Police Jury in Louisiana is the governing authority for the Parish. Of course, most states --- I could say the backward States --- have County Commissioners and those kind of things, but that is the Police Jury's authority.

Q Mr. Barber, in your official connection with the Parish, will you talk a little to the point of what has been done by the local people and through their efforts and what you have tried to do as this pollution has developed in the Corney Creek Drainage Area?

A This pollution problem was of tremendous con-

cern to this area. It affected the livelihood of citizens, and it affected the recreation of a lot of people; not only in Claiborne Parish, but in South Arkansas and North Louisiana. As the pollution started coming in, the residents started to hollering to the Police Jury, and, being the Secretary of the Police Jury, I caught most of the complaints, I think. The Police Jury then on several occasions would pass resolutions asking for assistance. Our first resolution that I remember was possibly in January of 1949 it was adopted, at which time we asked the State of Louisiana to attempt to work out with the State of Arkansas some satisfactory method of controlling the pollution, and, further, if such action wasn't worked out, that it be taken up with Federal authorities. That resolution was sent out to Arkansas State officials, to Louisiana State officials, and to Congressman Oren Harris and to Congressman Overton Brooks.

Since that date we have passed two or three additional resolutions, begging, pleading, and what not. The office of the Police Jury has written and has attempted to work with everyone that might help us, and some we knew darn well weren't going to help us, but we continued to try. We have done everything that we could do, that we knew to do, or could find out to do.

Our main contact since the U. S. Public Health Service came into it, we have worked directly with the U. S. Public Health Service, but we have attempted to keep a continuous fire under our Congressman, and he has done a pretty good job.

MR. STAFFORD: I believe that will be all, Mr. Barber.

CHAIRMAN: Any questions?

MR. KEITH: No questions, Mr. Chairman.

CHAIRMAN: The Board? That's all, Mr. Barber. (Witness excused)

MR. STAFFORD: Mr. Floyd James, please.

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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FLOYD B. JAMES

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called as a witness by counsel for the Government, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. STAFFORD:

Q You are Floyd James. You are President of T. L. James and Company. What is the nature of that business?

A Our Company is engaged in the construction business, and oil and gas production; oil and gas production being my particular phase of the Company's business.

Q You are also the equivalent of Trustee in most

senses of Southern Methodist University?

A That's right; but that's quite a long way removed from Corney Bayou. (Laughter)

Q You have also long been interested in the Boy Scout work?

A Yes, I have, for a great many years.

Q In addition, you have lived all your life and have utilized the Corney Drainage area for its fishing and outdoor recreation?

A Yes, that has been my principal recreation spot through the years since a boy.

Q Now, in that connection, speak first to the personal losses that this pollution of the drainage area has meant to you.

A Well, I have been fishing Corney, as I said, all of my life, and my brother and I built a camp there, spent several thousand dollars building a private camp, in 1947, and soon after that, we began to notice pollution. This was about ten miles south of the dam on Corney Lake. We began to notice the pollution, and I have kept a log at my camp of the

condition of the Creek, the gauge, the fish catch, and that sort of thing, and that log shows very clearly as the pollution developed the first bad year being 1952, and the water began to clear up; we began to see the emulsion in the water. After a rain, we could see this emulsion boiling in the water, and then it would very quickly clear up.

Of course, the loss to me has been the loss of the use of my camp, which has been rendered entirely useless, but the principal loss to me is the loss in my family recreation with my two boys, whom I used to be able to take out of school at three o'clock in the afternoon and take them up there for a nice fishing trip. I have been trying to make fishermen out of them, because I think it is one of the finest sports there is, and one of the finest things that a kid can do, but we don't have any place close enough now, and, to me, of course the loss of the camp is important, but the main

loss to me is the loss of my family recreation, particularly with my boys.

Q What about the utilization of this area by the Boy Scouts?

A The Boy Scouts in the area have used my camp and have used Corney Creek as a camping spot for a good many years. They have been contemplating putting a camp on D'Arbonne, which, as has been explained, is a part of the System, but of course the pollution --- in my opinion, that camp situation should be held up until the pollution situation is cleared up.

Q In your long work with the Boy Scouts, do you know any better movement in this fight on what we call juvenile delinquency than the activities promoted by the Boy Scouts for our young boys?

A No. I think it is about the finest movement that we have for that purpose. If we can get a kid out in the open, on the water, in the woods, he doesn't give much trouble.

Q Now, you are also Chairman of the Corney Pollution Control Committee of the Lincoln Parish Wildlife Association?

A Yes, I am. That is a long title for a job that has turned out to be a pretty long-drawn-out job.

Q You heard the testimony as to what the folks in Claiborne Parish have been doing. I wish you would outline just briefly for the Board what the folks in Lincoln Parish --- where Ruston is, and where this Wildlife Association is --- outline what they locally have been trying to do?

A We started in earnest in our Wildlife Association in 1952, which, as I said, was the first big year that we noticed it in Corney Bayou below the lake. We first investigated to find out where the pollution was coming from, and then on September 27, 1952, we took a bus load of people -- there were thirty-nine on the bus, including the Lieutenant Governor of the State, and some other officials, of

the State of Louisiana --- and we went to the oil fields in South Arkansas, spent most of our time in the Village Field, where we visited leases and were positively amazed at what we saw; tremendous quantities of brine water flowing out into the creeks that led down to Corney. That's when, really, we began to get active, because we wondered how we were having any fishing at all when we saw what we did up there. Since that time, we have been active in every way possible, first, with the Arkansas Commission, and with the Louisiana officials, and then since then, with the Federal authorities.

Q Mr. James, do you feel that the local people in these three Parishes have done everything they could possibly do to get some help in this situation?

A Yes. We have used every effort that we knew how to use, because it is very important to us. The Police Jury of Lincoln Parish has adopted resolutions. They have a new one, incidentally,

which I have, which they asked me to bring along from the Lincoln Parish Police Jury.

Q Will you give that to the Reporter to be marked as an exhibit to accompany your testimony?

A Yes, sir. (Witness complies)

MR. STAFFORD: Mark that as an exhibit to his testimony. That is, if there is no objection to that.

CHAIRMAN: Is there any objection?

MR. KEITH: No objection.

MR. STAFFORD: Go ahead, Mr.James.

MR. JAMES: I also have a resolution adopted by the Lincoln Parish Wildlife Association, on the same subject.

MR. STAFFORD: Have that identified and attached in the same manner as an exhibit to your testimony. Mr. James, in the beginning I qualified you as being in the oil producing business. Have you any doubt in your mind ----

CHAIRMAN: These exhibits, like others, in the absence of any objection, will be

received, but of course they can't have the same standing as evidentiary proof as the sworn testimony of witnesses. The Board will simply take them and consider the statements therein for whatever they may be worth as bearing on the case.

MR. STAFFORD: May it please the Board, that is exactly the way we wished it. These local groups can't understand why, when they send these messengers with these things, we can't at least get them before the Board, and that is the only reason they are offered. He was given that job to do, and if he doesn't tender them, then, when he goes back, they think "Well, you can't even get what we have got to say listened to." We do not offer it as any evidence of the statements they make in there. We are proving those by Mr. James and these other witnesses, and they are available for cross-examination.

CHAIRMAN: Well, they will be received and given consideration by the Board.

MR. JAMES: Thank you.

MR. STAFFORD: Mr. James, I

have one final question. You are in the oil and gas producing business. In your opinion, is there any source of pollution that this pollution of the Cornev Creek Drainage Area can be attributed to except from the oil fields in Arkansas?

WITNESS: At the point of my camp and above, I know of no other source of pollution.

MR. STAFFORD: Thank you, sir.

CHAIRMAN: Any questions?

MR. KEITH: We have none, sir.

CHAIRMAN: Members of the Board? That is all, Mr. James.

MR. STAFFORD: May it please the Board, my thirty minutes are up, and I will close this portion of the Government's case.

MR. STEIN: The Government has no further witnesses.

CHAIRMAN: Then the Government rests its main presentation of evidence?

MR. STEIN: Yes, sir.

CHAIRMAN: Now, I think we had better hear the statement from the representative of Arkansas. Is Mr. Wood here? And if there are any other State Agencies that wish to be heard, and have not yet been heard, we will take them at this time. -- Do you wish to testify, or simply to make a statement as a matter of argument or representation, Mr. Wood?

MR. M. L. WOOD: I wish to make a statement for the Arkansas Water Pollution Control Commission, Mr. Chairman, but we are introducing as exhibits with the statement certain documents which the Commission would like to have introduced under oath.

CHAIRMAN: Well, then, if you are going to identify any documents, perhaps you had better be sworn.

CLERK OF COURT: Do you solemnly swear that the evidence you are

about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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M. L. WOOD

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appearing as a witness on behalf of Arkansas Water Pollution Control Commission, having been first duly sworn, testified as follows:

WITNESS: I am M. L Wood, Director of the Arkansas Water Pollution Control Commission. The Commission wishes to make the following statement: (Reading)

Although the Arkansas Water Pollution Control Commission was not created until Act 472 of the 1949 State Legislature, data in its files concerning salt water pollution in Corney and tributaries of the Corney drainage system date back to August 1, 1941. Innumerable letters from Congressmen, sportsmen, inhabitants of the area, and State and

Federal agencies are in the files of the Commission.

Chloride concentrations in the various tributaries and Corney have varied between great extremes but it has been consistently shown that excessive amounts of chlorides are present.

Since Act 472 of 1949 did not allocate any operational funds to the AWPCC, members of the new Commission on July 26, 1949 requested the assistance of the Arkansas Oil and Gas Commission in instituting a voluntary pollution abatement program in the affected area. On August 17, 1949, the Director of the Oil and Gas Commission called a meeting of operators in the Village field for the purpose of discussing the pollution caused by salt water and possible corrective action.

On February 28, 1950 the AWPCC received a resume of the status of salt water injection systems in Arkansas from the Oil and Gas Commission. Included in this resume was the information that operators of the Village Field

had been attempting to work out an agreement to dispose of all salt water in the field to the Smackover lime formation. Also included in the report was the information that one of the largest operators in Village Field had withdrawn from the proposed association and had decided to install his own gathering and salt water disposal system.

It was during this period that the U. S. Geological Survey set up daily sampling stations for chemical analysis on some of the tributaries in the Corney Drainage System. The analytical results of 1950 and subsequent years verified the excessive chloride concentrations which were noted earlier in spot sampling checks by various agencies. With the advent of limited federal funds it became feasible for the AWPCC to employ a small technical staff. Field inspections, stream sampling, well inspections, and salt water disposal system inspections by members of the staff bore out the fact that satisfactory progress was not being made by all operators in the affected area, despite the fact that some

operators or combines of operators had instituted satisfactory salt water disposal systems.

Following length correspondence with the recalcitrant operators, during which time the AWPCC gave every opportunity to these operators to show good faith in attempting to solve the salt water disposal problem voluntarily, it became apparent that more rigorous action was necessary if any real abatement progress was to be made. On May 5, 1952, the AWPCC, at its regular meeting directed the Technical Secretary to take such steps as necessary to enjoin further pollution of streams in the Village field by companies who were major offenders and who had shown little inclination to stop discharging salt water. On May 7, 1952 Prosecuting Attorney Harry Crumpler at Magnolia was asked to institute proceedings against E. G. Bradham and Magnolia Petroleum Company.

No action was taken on this request, therefore, the AWPCC called a public hearing at Magnolia, Arkansas on November 25, 1952 to

hear testimony concerning pollution originating in the major fields in the area. A transcript of the public hearing is included as Exhibit A of this statement.

On December 16, 1952 at Magnolia, Arkansas the second public hearing was held to cover the remaining fields contributing salt water pollution in the Corney Drainage area. A transcript of the second public hearing is included as Exhibit B.

On December 19, the AWPCC, at its regular meeting in Little Rock considered the testimony of the two public hearings and all additional evidence and established the fact that chloride concentrations were far in excess of normal limits for waters of the area and the fact that certain operators had successfully solved their salt water problems whereas others had made little or no effort in the solution of the problem.

After giving due weight to all factors, the Commission issued a final order on January 7, 1953 adjudging and decreeing that

certain operators who had been found to be discharging excessive amounts of salt brine from their wells should cease and desist from discharging brines and other wastes, either voluntarily or involuntarily, into Corney Creek or any of its tributaries inside of Arkansas. The final order, which is included as Exhibit C, cites 36 leases.

Following issuance of the Cease and Desist Order, various companies named in the order entered in correspondence with the AWPCC outling procedures by which they were planning to abate pollution pursuant to the order of the Commission. One company filed an appeal to the order in Columbia County Circuit Court on February 24, 1953.

In March, 1953 the Commission failed to receive an appropriation and shortly thereafter the Federal funds which had supported its activities were exhausted, necessitating discharge of the staff.

A September 1, 1953 let-

ter to the Circuit Clerk of Columbia County elicited the information that no date had been set for hearing the one appeal which had been filed following the Commission's Cease and Desist Order. In addition, no action had been taken on behalf of the proceedings initiated in the office of the Prosecuting Attorney at Magnolia. Repeated complaints from residents of the area continued to be received by the AWPCC inasmuch as there was continued violation of the Commission's Cease and Desist Order.

As the Commission had no staff, it requested and received assistance from the Arkansas Oil and Gas Commission, The Arkansas State Board of Health, and U. S. Public Health Service's lower Mississippi-Western Gulf drainage basin office.

A total of 332 wells in the Corney Drainage Basin were checked individually by teams composed of an Oil and Gas Commission member and a Public Health Service member or State Board of Health member.

In each case a sample of the brine discharged was taken, chloride content and pH were ascertained, Kodachrome pictures were taken, waste discharges were measured, and small tributaries were sampled; chloride content and pH measurements were made on these stream samples. (This data is available to this Hearing Board).

The results of this survey released on October 15, 1953 indicated that 19 of the wells listed in the original Cease and Desist Order were continuing to discharge wastes. Sixteen additional wells were found to be either discharging brine or gave evidence of recent brine discharges. The report of this survey is included in this statement as Exhibit D.

Inasmuch as the AWPCC was without funds and it was obvious that increased pollution was resulting from new waste discharges in addition to most of the original violators of the Cease and Desist Order, and since the brine discharges involved pollution of an interstate stream, the U. S. Public Health Service, under

the provisions of P. L. 845, intervened and began the series of procedures which culminated in this public hearing.

As of this date, the AWPCC has received no notice of any action taken on their injunctions requested in May 1952, or on the appeal of the Cease and Desist Order which was issued in January 1953. The Commission notes that the Surgeon General's notice of the present public hearing lists the following leases which were cited in the Commission's Cease and Desist Order over four years ago: J. G. Alexander #1, Machen #1, Booth #2, Machen #3, E. D. Harris #1, E. D. Harris #2, Tissue #1, Harris-Gunnels #1, T. Crumpler #1, Threadgill #1, Threadgill #4, A. A. Gunnels #1, J. J. Gunnels #1, J. J. Gunnels #2, T. O. Giles Estate A-1, and Longino-Talley 1-X.

The Commission urges the members of this Hearing Board to take note of the fact that when it attempted to abate pollution contributed by essentially the same violators cited in the Surgeon General's notice of this public

hearing, it was unable to do so within the framework of its legal authority.

Further, that since the Commission's initial efforts to reduce pollution in the Corney Drainage Basin, a period of some eight years has elapsed and it should be apparent that more than adequate time has been given for all operators concerned to solve the problem of pollution resulting from salt water discharges.

It should be further noted that AWPCC files indicate that many attempts to use brine-holding pits have proven unsuccessful. It would seem apparent that only underground injection of the salt water offers a satisfactory solution for this problem, and further that forceful measures will be necessary if any lasting solution is to develop from this hearing. Lesser measures have failed, with the result of continuing pollution contributed by a minority of operators in the area whereas the conscientious members of the indus-

try have expended large sums of money over an eight year period in disposing of their brine wastes by injection to underground formations.

MR. WOOD: I have two copies of this statement.

CHAIRMAN: Will the Clerk please mark those as exhibits of the Water Pollution Control Commission of Arkansas?

(Exhibits marked by Clerk)

CHAIRMAN: Mr. Wood, will you now refer to those two books which you are submitting that have been marked as exhibits, state the numbers which the Clerk has given them, and describe each one for the record?

MR. WOOD: These exhibits have been marked as Arkansas Water Pollution Control Commission Exhibit No. 1; both copies. They are a large, black-bound, book ---

CHAIRMAN: I mean, as to their contents. Are these identical? That is, duplicates of the same thing?

MR. WOOD: That is correct;

they are duplicates.

CHAIRMAN: They are duplicates of the statement which you have just read----

MR. WOOD: I will read the names of the exhibits. Is that what you desire?

CHAIRMAN: --- and the exhibits which are appended to them.

MR. WOOD: Exhibit A is the first public hearing which was held in Magnolia, Arkansas, on the Corney Drainage Systen.

Exhibit B is a transcript of the second public hearing, which was held in Magnolia, Arkansas, in December of 1952 on the Corney Drainage System.

Exhibit C is a copy of the Commission's Cease and Desist Order, which was issued on January 7, 1953.

Exhibit D is a copy of the report entitled "Sources of Pollution in the Corney Creek Drainage Area", which was submitted to the Commission from the State Health Department. It was a cooperative report, submitted on October 15,

1953.

CHAIRMAN: There being no objection, they will be received. Any questions?

MR. STEIN: No questions, Mr. Chairman.

CHAIRMAN: Any questions, Mr. Keith?

MR. KEITH: No questions.

CHAIRMAN: Members of the Board have any questions?

MR. KELLOGG: Mr. Wood, the statement that you have just read, was that approved by the Chairman of the Arkansas Water Pollution Control Commission?

MR. WOOD: It was.

MR. KELLOGG: That is the only question I have.

CHAIRMAN: That is all, Mr. Wood. (witness excused)

CHAIRMAN: I believe Mr. Trigg of Louisiana had indicated a desire to make a statement. Is Mr. Trigg here? Mr. Trigg, will

you be sworn?

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

CHAIRMAN: Mr. Trigg, will you give us your full name and official position, and make whatever statement you wish to submit to the Board?

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JOHN E. TRIGG

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appearing as a witness on behalf of Louisiana Stream Control Commission, having been first duly sworn, testified as follows:

WITNESS: I am John E. Trigg, Director of the Division of Public Health Engineering of the Louisiana State Health Department. I am appearing before this Board as a representative of the Louisiana Stream Control Commission. This is the statement I would like to make:

The Louisiana Stream Control Commission has worked with the Public Health Service and other agencies in studies on Corney Lake, Corney Creek, and its tributaries. The records of the Louisiana Stream Control Commission show concurrence with the findings of the Public Health Service, particularly in the period up to and including 1954 insofar as Louisiana is concerned.

CHAIRMAN: Mr. Trigg, may I ask you: in your capacity as Director of the Board of Health, are you a member of the Stream Control Commission?

MR. TRIGG: The Stream Control Commission is composed of certain department heads in the State of Louisiana, or their representatives. I have been designated by letter as the representative of the State Health Department on the Stream Control Commission for this meeting.

CHAIRMAN: Any questions?

MR. STEIN: No questions.

MR. KEITH: No questions.

CHAIRMAN: Members of the Board?

That's all, Mr. Trigg.

MR. TRIGG: Thank you.

CHAIRMAN: Now, are there any other State agencies desiring to be heard? If not, we will proceed with the other parties.

STIPULATION

IT IS STIPULATED that Mr. Keith represents all operators named in the Surgeon General's Notice of hearing except Williams, Sellars and Ewing.

CHAIRMAN: Mr. Keith, do you have something to submit?

MR. KEITH: We would like to call Mr. Lacy.

CHAIRMAN: Please state in behalf of what parties he is being called?

MR. KEITH: McAlester Fuel Company.

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help

you God?

WITNESS: I do.

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STERLING S. LACY, JR.

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called as a witness by counsel for McAlester Fuel Company, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KEITH:

Q State your name, please?

A I am Sterling S. Lacy, Jr.

Q By whom are you employed, Mr. Lacy?

A I am employed by McAlester Fuel Company as as Petroleum Engineer.

Q Mr. Lacy, what preparation have you made to prepare yourself to practice your profession?

MR. STEIN: We will stipulate his qualifications, Mr. Keith.

MR. KEITH: Thank you, sir.

Q Mr. Lacy, have you prepared a statement with respect to the efforts on the part of McAlester

Fuel Company to dispose of its produced water in the Village Field, Columbia County, Arkansas?

A I have.

Q Will you please read this statement into the record?

A Yes, sir. (Reading)

STATEMENT OF McALESTER FUEL COMPANY
AT CORNEY LAKE POLLUTION HEARING
JANUARY 16, 1957

Operators in the Village Field began holding meetings concerning salt water disposal in 1948, and initially a joint system to serve all wells in the Village Field was planned. Cost estimates of this original system approximated $200,000.00.

Following the withdrawal of one of the major operators in the Village Field from the joint salt water disposal plan, each company set out individually to install its own system. (There are now three different disposal systems operating in the Village Field.) It was

found that the proposed disposal system of McAlester Fuel Company covered an area in which Ashland, Carter and Douglas Whitaker could jointly participate. These four parties joined together in a joint disposal system. An expenditure of approximately $26,500.00 was made for an injection well, and gathering lines were installed at a cost of approximately $64,000.00.

This system operated from December 27, 1950, to January 8, 1951, disposing of water produced from 29 wells. During this period, over four million barrels of salt water were disposed of underground. Mixing of the Smackover Lime and Travis Peak salt water caused the formation of an insoluble barium sulphate deposit. This deposit plugged our gathering lines and the injection well.

Immediately following the loss of the disposal well, the operators continued plans for proper salt water disposal. Tests were made in the Tokio and Nacatoch to try to develop a new salt water disposal zone. These tests were not successful.

In April, 1955, the V. Shocklee B-1 was deepened and converted to a Smackover Lime disposal well. Our filter plant equipment was moved and re-located to permit disposal into this well. Disposal was resumed April 29, 1955. To January 1, 1957, this joint system has handled a total of 6,831,443 barrels of salt water at a cost of 3.164 cents per barrel.

The total expenditure for plant equipment, gathering lines, and operating costs during this six year period have amounted to $216,137.27. This has been a dead expense in that no benefits have been achieved by the disposal of this water.

We have been cited for pollution from the M. Haskell A-1, Village Field, Columbia County, Arkansas. This well has ceased to produce and has been plugged and abandoned in accordance with the regulations of the Arkansas Oil and Gas Commission. Enclosed are photostatic copies of the Application to Plug, Permit to Plug,

and Plugging Report for this well.

MR. KEITH: We should like for these instruments to be marked McAlester Exhibits A, B and C, or 1, 2 and 3; whatever method you use. (Exhibits marked by Clerk of Court McAlester Exhibits Nos. 1, 2 and 3)

MR. KEITH: Mr. Chairman, these exhibits are applications to plug and then permit from the Arkansas Oil and Gas Commission to plug this particular well, and then the plugging record issued by the Arkansas Oil and Gas Commission, and unless there is some objection on the part of Counsel for the Government, we should like to introduce these as exhibits to Mr. Lacy's testimony.

CHAIRMAN: Is there any objection?

MR. STEIN: No objection.

CHAIRMAN: They will be received.

MR. LACY: (Resumes reading statement) With respect to the T.O.

Giles Estate A-1, located in the Spottsville Field --- I would like to make reference now to Government Exhibit No. 53 ---- This well, located in the Spottsville Field, Columbia County, Arkansas, is remotely located in comparison to the Village Field. A request was made to the Arkansas Oil and Gas Commission in November, 1954, to dispose of the produced salt water by injection into the annular space between the 9 5/8" and 5 1/2" casing. Permission for this operation was granted for a period not to exceed one year.

We would like to introduce an additional exhibit, a photostatic copy of the letter from the Arkansas Oil and Gas Commission, granting us this authority, to be labeled McAlester Exhibit No. 4.

MR. KEITH: This is authority from the Arkansas Oil and Gas Commission to dispose of this salt water in the annular space just mentioned by Mr. Lacy. Is there objection?

MR. STEIN: No objection.

CHAIRMAN: It will be received.

MR. LACY: (Resumes reading statement) Permission for this operation was granted for a period not to exceed one year. Expiration date on this permit was November 17, 1955. During November, 1954, a disposal pump was placed in operation and operated from November 24 to January 1, 1955. This pump did not handle all of the produced salt water, and it was determined that this method of operation was not satisfactory.

Then a high-pressure free-water knockout was purchased and installed. This equipment separated the water from the gas and oil and injected the free water back into the annulus. This equipment was in operation from February 25 to October 20, 1955. This well died December 14, 1956, and we are now requesting permission from our partners to plug and abandon this well.

We are the Operator of sixty-nine wells in the Hibank, Wesson Outside, and Center Fields. McAlester Fuel Company has, on its own

initiative, without any suggestion or order from any regulatory body, installed and operated salt water disposal systems in these fields at a total cost of $293,079.28. The above, together with the expenditure in the Village Field, represents expenditures in excess of one-half million dollars attributable to salt water disposal. We believe that this indicates more than a good-faith effort to dispose of our produced salt water.

MR. KEITH: That is all, Mr. Chairman.

CHAIRMAN: Any questions?

MR. EDELMAN: I have one question, Mr. Chairman.

CROSS-EXAMINATION

BY MR. EDELMAN:

Q Can you tell us the name of the operator who withdrew from the plan to have an injection system for the entire Village Field?

A It was Mr. E. G. Bradham.

CHAIRMAN: Any other questions? Members of the Board? That is all. (Witness excused)

MR. KEITH: We would like to call Mr. C. V. Blanchard, who has a statement on behalf of E. G. Bradham, E. D. Bradham, and C. B. Ragsdale.

CLERK OF COURT: Do you solemnly swear that the evidence you are about to give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

WITNESS: I do.

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C. V. BLANCHARD

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called as a witness by Counsel on behalf of E. G. Bradham, E. D. Bradham and C. B. Ragsdale, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KEITH:

Q State your name, please?

A C. V. Blanchard.

Q By whom are you employed, or with whom are you connected, Mr. Blanchard?

A E. G. Bradham, El Dorado, Arkansas.

Q Mr. Blanchard, in what capacity are you so employed?

A General Superintendent.

Q Have you prepared a statement with respect to the efforts of your employer to dispose of the salt water produced in the Village Pool, Columbia County, Arkansas?

A I have.

Q Would you read the statement into the record, please?

A Yes, sir. (Reading)

STATEMENT OF E. G. BRADHAM AND
C. B. RAGSDALE IN RESPONSE TO
NOTICE OF PUBLIC HEARING ISSUED
BY E. L. BURNEY, SURGEON GENERAL

E. G. BRADHAM and C. B. RAGSDALE state upon oath that they are the Operators of thirteen oil wells in the Village Field, Columbia County, Arkansas, and one oil well in the Atlanta Field, Columbia County, Arkansas, described in the Appendix to Notice of Public Hearing issued by the Surgeon General, calling a hearing to be held at

Homer, Louisiana, on Wednesday, January 16, 1957.

That some of the wells located in the Village and Atlanta Fields, Columbia County, Arkansas, produce oil from the Smackover Lime; others produce from the Travis Peak Formation, and others produce from the Cotton Valley Formation. Quite a number of these wells produce salt water, but are not producing acids of any sort.

In the year 1950, Bradham and Ragsdale drilled a well to a depth of 2900 feet for the express purpose of locating an underground formation suitable for the disposition of salt water. This well was perforated with 100 shots from 1810 to 1870 feet; with 90 shots from 2571 to 2601 feet; with 90 shots from 2766 to 2796 feet, all at a cost of $35,000.00. It was determined that this well was not suitable for the disposition of salt water because of the high pump pressure required for injection. This well, known as the J. J. Gunnels 1-S, is still in existence and is located on the $NW\frac{1}{4}$ of the $NE\frac{1}{4}$, Section

16, Township 17 South, Range 19 West, Village Field, Columbia County, Arkansas.

During the years 1947 to 1952, numerous tests were made in the Smackover Lime Formation to determine the formation characteristics as to fluid acceptance. The breakdown pressure of this formation varied from a minimum of 4500 PSI to maximum of 6500, and in no test did the injection pressure fall below 4000 PSI, with a very low volume injection rate. From a practical engineering and operational standpoint, it is considered impractical to use this formation for salt water disposal.

Numerous tests have also been made in the Travis Peak Formation and the Cotton Valley Formation found at depths from 4200 to 7300 feet below the earth's surface and the breakdown pressure was found to be from a minimum of 4000 PSI to a maximum of 5500 PSI, and in no test did the injection pressure fall below 3000 PSI with a very low volume injection rate. Therefore, from a practical engineering

and operational standpoint, it is considered impractical to use any of the formations tested for salt water disposal.

Upon completion of the above mentioned wells, earthern pits were dug for the purpose of impounding salt water. These pits became inadequate for the salt water produced and during the years 1955 and 1956, larger holding pits were dug for each well producing salt water at a cost of $15,000.00, and presently the salt water being produced is being impounded in these pits. During rainy seasons there are some cases where the pits overflow.

For a number of years, some of the above mentioned wells have been small producers and the cost of lifting the oil is high, making some of them marginal wells; that the income from marginal wells is very little more than the cost of producing the oil and expenditures for salt water disposal of any magnitude would make the operation of the marginal wells an unprofitable operation, which, of course, would result in the

abandonment of the wells and the loss of whatever oil underlies the land on which the wells are located.

Under the present arrangement of impounding salt water in holding pits, it is believed that very little salt water enters Cornie Creek from these wells except during wet seasons, at which time the amount of fresh water is so abundant that the salt water is diluted to the extent that it causes no damage to vegetation or human and marine life.

MR. KEITH: That is all, Mr. Chairman.

CHAIRMAN: Do Counsel have any questions?

MR. STEIN: There are no questions of this witness. However, we should like the record to show that the Surgeon General's name is L. E. Burney and not E. L. Burney.

CHAIRMAN: Any questions by members of the Board?

MR. BIGLANE: I have some.

EXAMINATION

BY MR. BIGLANE:

Q Mr. Blanchard, you said that injections of three to five thousand pounds per square inch were not practical?

A In our opinion.

Q What is a practical injection rate, in terms of pounds per square inch?

A For a large volume injection rate as would be necessary in salt water disposal, it would have to be under fifteen hundred pounds in our opinion to be practical.

Q Under fifteen hundred pounds? Over that it would be uneconomical?

A Well, over that, you couldn't achieve the high injection rate necessary.

Q Could you inject all of the brine, no matter what the pounds per square inch was?

A If you had enough disposal wells, you could, but if you had to have three disposal wells for each producing well, you certainly couldn't go into it from that angle from an economical

standpoint.

Q Well, is it then not practical or uneconomical?

A It is uneconomical. And when you say uneconomical, it is not practical.

Q Well, then, is the injection of any brine economical?

A If you can inject at a satisfactory rate, you can handle it at a small cost per barrel and it will be economical.

Q Does the State of Arkansas give you any tax relief on monies lost where injections are not economical?

A I believe all tax agencies give you your tax relief from the standpoint of decreciation and intangible costs.

MR. BIGLANE: That is all. Thank you.

CHAIRMAN: Any other questions? That is all, Mr. Blanchard. (Witness excused)

MR. KEITH: Mr. Chairman, that is all. That is the situation as we see it.

CHAIRMAN: We will take a

standpoint.

Q Well, is it then not practical or uneconomical?

A It is uneconomical. And when you say uneconomical, it is not practical.

Q Well, then, is the injection of any brine economical?

A If you can inject at a satisfactory rate, you can handle it at a small cost per barrel and it will be economical.

Q Does the State of Arkansas give you any tax relief on monies lost where injections are not economical?

A I believe all tax agencies give you your tax relief from the standpoint of decreciation and intangible costs.

MR. BIGLANE: That is all. Thank you.

CHAIRMAN: Any other questions? That is all, Mr. Blanchard. (Witness excused)

MR. KEITH: Mr. Chairman, that is all. That is the situation as we see it.

CHAIRMAN: We will take a

short recess now, but before we declare the recess, let me inquire whether there are any other parties who wish to be heard? If not, I suggest that during the recess Counsel confer and advise the Commission as to what further proceedings would be in order at this time while the Board is still in session so that we may arrange for a further session for that purpose during the remainder ofthe day. We will now take a recess for fifteen minutes.

RECESS

CHAIRMAN: The hearing will come to order. I will now ask again if there are any parties who wish to submit further evidence? Hearing none, I will ask whether there are any parties who wish to submit closing summary statements or arguments?

Then before we finally adjourn, I will say that, in the absence of any closing statements or arguments by any of the parties, we will close this hearing, and then the Board will proceed into session as a Board to deliberate upon its find-

ings, conclusions and recommendations to the Secretary of Health, Education, and Welfare, and if Counsel for any parties desire to submit any proposals to the Board for that purpose, they will be received. So, are there any such proposals to be submitted? I hear none.

This hearing will then now be finally adjourned and thereafter the Board will immediately go into session for the purpose which I have stated. The hearing is adjourned.

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GOVERNMENT EXHIBIT NO. 60

STATE OF LOUISIANA :

PARISH OF UNION :

BEFORE ME, the undersigned authority, personally came and appeared J. C. Long, a resident of Farmerville, Union Parish, Louisiana, who after being by me first duly sworn on his oath deposes and says:

That for some five or six years prior to about 1952 or 1953, affiant operated a recreation center, consisting of a boat dock, picnic grounds, where boats were kept for rent to the general public, on Bayou Corney, in Union Parish, Louisiana, approximately 20 miles (air) below Corney Lake, and near where the Farmerville-Bernice Highway crosses Bayou Corney; that during the years prior to 1951, business was good; my facilities, including boats, were kept rented practically every day and the people who were renting the boats were catching fish. However, about 1953, pollution of some kind began to af-

feet the [illegible], the fish gradually disappeared, and finally I had to discontinue operation of my place of business which was a full time operation for me and now it is not being operated at all because there are no fish in the Bayou to catch.

I could at first notice the water began to clear up; instead of having that murky brown color as it had been having, the water began to get clear and now you can see the bottom of the bayou five or six feet deep.

Also I began to notice that the chains on my boats began to rust out in an unusually short period of time after 1953, whereas, before that time a boat chain would last longer than the boat; however, after pollution began coming into the watershed, the chains would rust out in a very short period of time.

I was also assisted in the operation of the place of business by my sister and brother-in-law, and the effects of the pollution on the waters and resulting fish damage also placed them out of employment.

I have during 1952 and 1953 actually observed both commercial fish, catfish and buffalo, as well as game fish, bass, bream and white perch, dying by the hundreds in the water after a charge of the pollution reached this area. You could tell that it was something affecting the water causing the death of the fish because you could observe a change in the make-up of the water.

(Signed) J. C. LONG

Sworn to and subscribed before me on this the 15th day of January, 1956.

(Signed) ARMAND F. RABUN
Armand F. Rabun,
Notary Public in
and for Union
Parish, Louisiana.

CERTIFICATE

WE HEREBY CERTIFY that the foregoing pages constitute Volume II and are a true and correct transcript of our tape recording of the proceedings at a public hearing before the Board appointed by the Surgeon General, United States Public Health Service, Department of Health, Education, and Welfare, to hear the matter of the Pollution of the Interstate Waters of the Corney Drainage System (Arkansas-Louisiana), at Homer, Louisiana, beginning at ten o'clock A. M. on January 16, 1957, until noon, January 17, 1957, Volume I containing the remainder of said transcript.

DATED at Shreveport, Louisiana, this the 21st day of February, A. D. 1957.

AUTREY REPORTING SERVICE